DEPARTMENT of ENVIRONMENTAL SERVICES Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: SKATUTAKEE, LAKE		Lake Area (ha):	105.58
Town: HARRISVILL	_E	Maximum depth (m):	6.2
County: Cheshire		Mean dept <u>h</u> (m):	2.9
River Basin: Merrimack		Volume (m³):	3044500
Latitude: 42°56'15"	N	Relative depth:	0.5
Longitude: 72°04'30"	W	Shore configuration:	1.67
Elevation (ft):	1202	Areal water load (m/	vr): 23.91
Shore length (m):		Flushing rate (yr ⁻¹):	8.30
Watershed area (ha): 4	4532.5	P retention coeff.:	0.46
% watershed ponded:	9.4	Lake type: natu	ural w/dam

	The second secon	
BIOLOGICAL:	23 January 1989	22 August 1988
DOM. PHYTOPLANKTON (% TOTAL) #1	DINOBRYON 35%	ASTERIONELLA 40%
#2	ASTERIONELLA 25%	TABELLARIA 20%
#3	TABELLARIA 25%	
PHYTOPLANKTON ABUNDANCE (cells/mL)		1645.0
CHLOROPHYLL-A (µg/L)		9.44
DOM. ZOOPLANKTON (% TOTAL) #1	KERATELLA 50%	KELLICOTTIA 29%
#2	KELLICOTTIA 19%	NAUPLIUS LARVA 25%
#3		KERATELLA 17%
ROTIFERS/LITER	85	81
MICROCRUSTACEA/LITER	13	79
ZOOPLANKTON ABUNDANCE (#/L)	105	161
VASCULAR PLANT ABUNDANCE		Scattered
SECCHI DISK TRANSPARENCY (m)		2.4
BOTTOM DISSOLVED OXYGEN (mg/L)	11.4	7.7
BACTERIA (fecal col., #/100 ml) #1		< 10
#2		< 10
#3		
		

SUMMER THERMAL STRATIFICATION:

not stratified

Depth of thermocline (m): None Hypolimnion volume (m³): None

Lake: SKATUTAKEE. LAKE CHEMICAL: Town: HARRISVILLE 23 January 1989 22 August 1988 4.0 DEPTH (m) 1.5 3.0 1.0 6.5 6.4 6.1 pH (units) 6.3 2.4 2.0 1.9 2.6 A.N.C. (Alkalinity) NITRATE NITROGEN < 0.05 < 0.05 < 0.05 < 0.05 0.62 0.41 0.44 0.53 TOTAL KJELDAHL NITROGEN 0.016 0.018 0.010 TOTAL PHOSPHORUS 0.011 34.0 37.0 34.3 33.9 CONDUCTIVITY (p mhos/cm) 24 24 12 13 APPARENT COLOR (cpu) 0.54 MAGNESIUM 1.7 CALCIUM SODIUM 3.1 **POTASSIUM** 0.50 4 4 CHLORIDE 4 5 5 SULFATE 6 6 24 26 TN: TP 48 62 CALCITE SATURATION INDEX 4.2

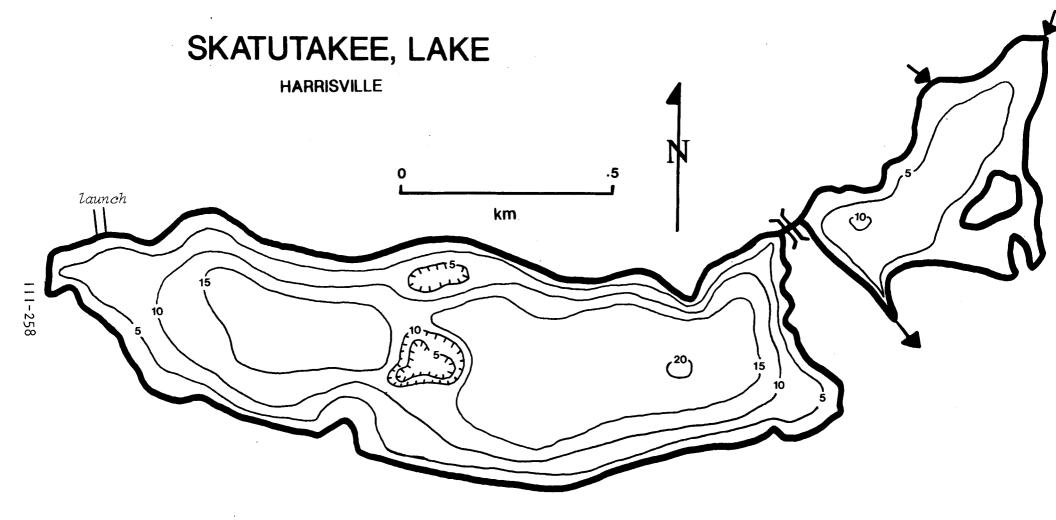
All results in mq/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1988

D.O	•	S.D.	PLANT	CHL	TOTAL	CLASS
**	k	3	1	2	6	Meso.

COMMENTS:

- 1. Previously known as Harrisville Pond.
- 2. The algae level was somewhat high, although not excessive; however, species were present that gave the water a putrid odor.
- 3. Chrysochromulina (55%) was the dominant whole-water phytoplankton genus, and its class, golden algae, was the dominant class (55%).
- 4. Lake was previously surveyed in 1976; there was no change in trophic classification.



Rough Bathymetric Chart WSPCD - 1988 sounded by fathometer

5 ft. isobaths

FIELD DATA SHEET

LAKE: SKATUTAKEE, LAKE

DATE: 08/22/88

TOWN: HARRISVILLE

WEATHER: OVERCAST, COLD, BREEZY

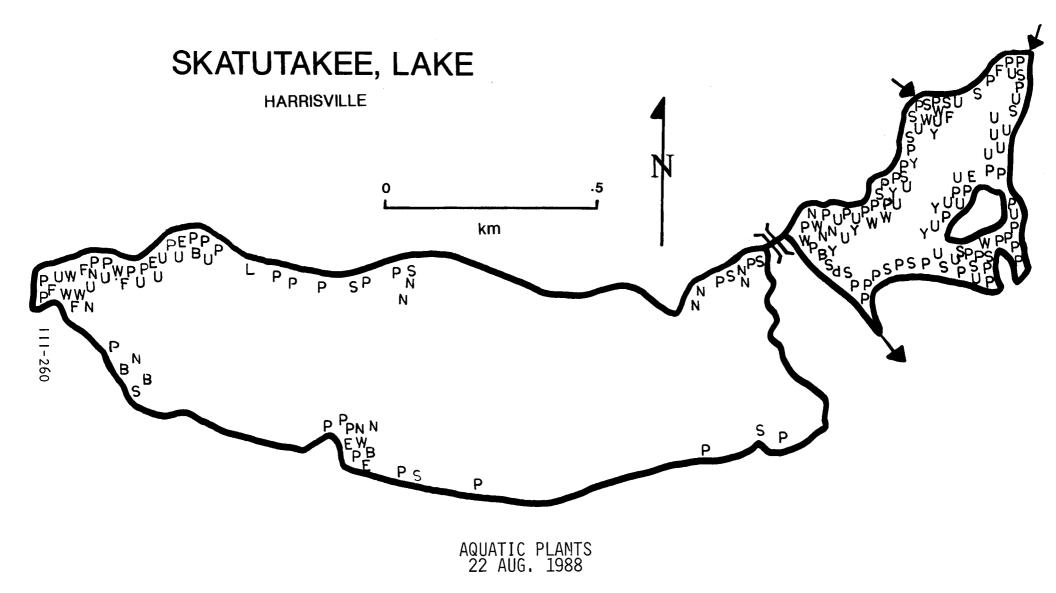
DATE: 00/22/00	WEATE	IER: UVERCASI, COLD	DREEZT
DEPTH (M)	TEMP (°C)	*DISSOLVED OXYGEN	OXYGEN SATURATION
0.1	22.2	7.9	89 %
1.0	22.2	8.1	92 %
2.0	22.1	7.8	88 %
3.0	22.0	7.9	88 %
4.0	22.0	7.8	88 %
5.0	21.9	7.7	85 %

SECCHI DISK (m): 2.4 COMMENTS:

BOTTOM DEPTH (m): 5.3

TIME: 1315

*Dissolved oxygen values are in mg/L



AQUATIC PLANT SURVEY

LAKE: SKATUTAKEE, LAKE TOWN: HARRISVILLE DATE: 08/22/88 PLANT NAME Kevi ABUNDANCE GENERIC COMMON Р Pontederia cordata Pickerelweed Common W Potamogeton Pondweed Scattered 11 Utricularia Bladderwort Common F Chlorophyceae Filamentous green algae Scattered N Nymphaea White water lilv Scattered S Sparganium Bur reed Scattered В Brasenia schreberi Water shield Scattered Ε Eriocaulon septangulare Pipewort Sparse Ω Cephalanthus occidentalis Sparse Buttonbush Υ Nuphar Yellow water lily Sparse Dulichium arundinaceum Three-way sedge Sparse Lobelia dortmanna Water lobelia Sparse

OVERALL ABUNDANCE: Scattered

GENERAL OBSERVATIONS:

1. Plants were abundant in the western inlet end (marshy area), and were very common in the small section across the road. Plants were relatively sparse in the lake proper.